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Non Load-bearing Partitions on Timber Intermediate Floors

Introduction

This Technical Bulletin provides a brief description of the types of partition likely to be used on timber floors and details the method by which non-load bearing partitions should be fixed to timber intermediate floors.

Types of Non-Load Bearing Partition

Non-load bearing partitions can be grouped broadly into two main categories:

1. **Timber Stud partitions**
2. **Proprietary Partition Systems**

The second category can be subdivided into two types:

- a). **Honeycomb Partition Systems**
- b). **Metal Stud Partition Systems**

Timber Stud Partitions

Timber Stud Partitions will usually comprise minimum 63mm x 38mm sill and head plates and 63mm x 38mm studs at maximum 600mm centres, although larger timber section sizes are often used. The partition will be either prefabricated in the case of timber frame building, or site made in the case of masonry building. Plasterboard finishes are fixed directly to the timber framing. Typical timber stud partitions weigh about 29.5kg/m².

Proprietary Partition Systems **Honeycomb Partition Systems**

These systems are typified by British Gypsum **Panel Wall** (Paramount dry partition) and Lafarge **Panelplus** partitions. Both systems comprise a plasterboard sheet bonded to each face of a cellular core. The panels typically weigh from 17kg/m² to 40kg/m² depending on specification. The panel systems are installed by fixing timber battens to the floor, ceiling and end walls, and then positioning the wall panels over the battens.

Metal Stud Partition Systems

These systems are typified by British Gypsum **GypWall** and **GypWall RAPID** and Lafarge **Homespan Partitions** and generally comprise plasterboard sheets fixed to each face of a light gauge steel frame that includes floor and ceiling channels, studs and noggings. The partitions generally weigh from about 25kg/m² to about 43kg/m². The partitions are installed by fixing the floor and ceiling channels followed by the studs and noggings, to which the plasterboard sheets are then attached.

Fixing Partitions to the Floor

To ensure the long-term performance of the floor and partition are maintained it is important that all partitions, whether timber stud or proprietary system, are securely fixed to the floor. Fixing should be made through the partition sill or sole plate directly into the joists or noggings. Figure 1 shows typical fixing details. NHBC Standards Section 6.3-S4 shows similar details and states that '*partitions should be fixed at head and base to noggings or joists.*' Fixing through the sill or sole plate into the floor deck is not adequate and could lead to differential movement between the partition and floor that may result in squeaks and disruption to finishes.

Proprietary partition system manufacturers also state that the partitions should be fixed to the floor at maximum 600mm spacing.

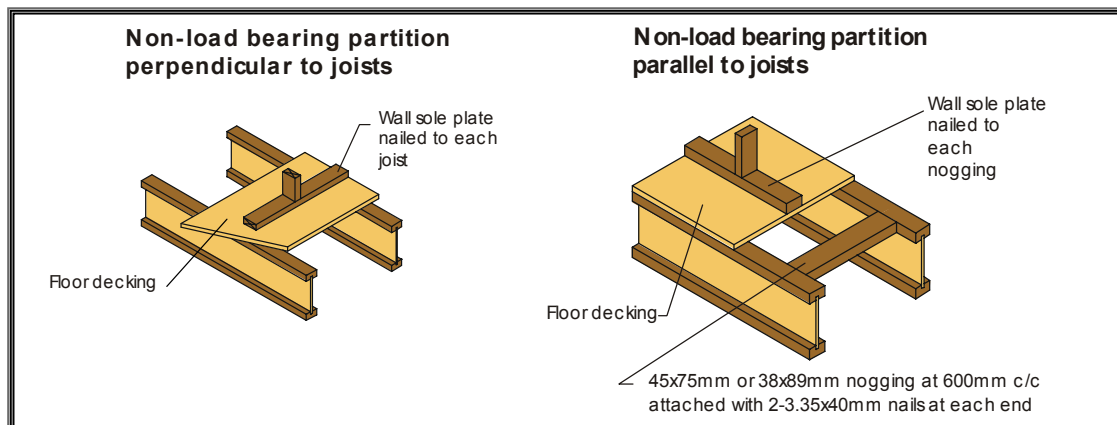


Figure 1. Typical fixing of non-load bearing partitions to timber floors

References

1. NHBC Standards. Chapter 6.3, Clause 6.3 – S4 and 6.3 – S5.
2. British Gypsum. White Book 2001
3. Lafarge Plasterboard. The Lafarge Drywall Manual

